

Index to Volume 60 (1985)

No. 1 Jan.-Feb.	Pages 1-48
No. 2 Mar.-Apr.	Pages 49-104
No. 3 May-June	Pages 105-152
No. 4 July-Aug.	Pages 153-208
No. 5 Sept.-Oct.	Pages 209-256
No. 6 Nov.-Dec.	Pages 257-304

Cover Photographs

January-February: Dioptase on calcite, Namibia; Harold and Erica VanPelt photographers
 March-April: Rutile on quartz, North Carolina; Louis Perloff photographer
 May-June: Barite, Owanka, South Dakota; Thomas J. Campbell photographer
 July-August: Turquoise crystals on quartz, Lynch Station, Virginia; John C. Medici photographer
 September-October: *Isotelus Maximus*, Oldenburg, Indiana; Joseph Braun photographer
 November-December: Pyromorphite, Kellog, Idaho; Wendell E. Wilson photographer

Agate, 115
 Alabandite, 135
 Albite, 220, 285
 Alleghanyite, 132
 Almandine, 266
 Amblygonite, 220
 Analcime, 98, 215
 Andalusite, 114
 Andradite, 134
 Antimony, 289
 Apophyllite, 215
 Aragonite, 236
 Bald Knob Manganese Deposit, Allegheny County, North Carolina, W. B. Simmons, Jr., 130
 Barite, 114, 123, 158, 236
 Barylite, 236
 Beryl, 266, 272
 Biotite, 282
 Biot, J. B. 282
 Bird, S. O., Some Notable Fossils in Virginia, 171
 Bjork, P. R., Museum of Geology, South Dakota School of Mines and Technology, Rapid City, South Dakota, 125
 Bravoite, 227
 Breccia, 245
 Brown, H. S., Geology of North Carolina, 58
 Brush, G. J., 190
 Brushite, 190
 Bustamite, 237
 Cacoxenite, 79
 Calcite, 114, 124, 159, 215, 237, 287
 Callahan, J., Pegmatites and Alaskites of North Carolina, 64

Campbell, T. J., Mineral Localities in the Black Hills of South Dakota, 109
 Canada, Cassiar Mountains, British Columbia, Yukon Territory, 9; rutile, Hastings County, 284
 Canfield, F. A., 232
 Canfieldite, 233
 Caryopillite, 134
 Cattierite, 135
 Celadonite, 159
 Celestite, 237
 Cerussite, 238
 Chabazite, 97, 123
 Chalcedony, 159
 Chalcopyrite, 159
 Chamberlain, S. C., New Occurrences of Twinned Crystals in St. Lawrence and Lewis Counties, New York, 285; Mineralogy of the Titanite Occurrence Near Natural Bridge, New York, 288
 Charlesite, 238
 Chips from the Quarry, 4, 108, 156, 212, 261
 Chlorite, 159
 Chondrodite, 241
 Classified Advertisements, 43, 100, 147, 204, 252, 299
 Clay, 66
 Cleavelandite, 271
 Clinohedrite, 238
 Cobaltite, 135
 Collecting Fossil Fish from the Green River Formation, Wyoming, R. D. Dayvault, M. R. Bersch, 29
 Collections and Displays, North Carolina Listing, 83; Museum of Geology, South Dakota School of Mines and Technology, Rapid City, South Dakota, 125; Lora Robins Gallery of Design from Nature, University of Richmond, Virginia, 193; Mineral and Fossil Collections and Displays in Virginia, A Compilation, 198; A "Pathway to the Past" at the Cincinnati Museum of Natural History, Cincinnati, Ohio, 223
 Color of Sphalerite from the Lock Port Dolostone: Relationship to Chemical Impurities, A. Dunn, 286
 Colorado, Mount Antero, 14; Kings Canyon lithium pegmatites, 219
 Columbite, 267
 Coming Events, 40, 144, 199, 249, 296
 Connecticut, Thomaston Dam site, 119
 Copiapite, 180
 Coquimbite, 180
 Corundum, 238
 Cummings, W., Mineralization at the Millington Quarry, New Jersey, 213
 Currier, R. H., book review, *Hardrock's International Rockhound Cookbook*, 34
 Cycads, 115
 Datolite, 216

Davis, R. A., A "Pathway to the Past" at the Cincinnati Museum of Natural History, Cincinnati, Ohio, 223
 Dayvault, R. D., Collecting Fossil Fish from the Green River Formation, Wyoming, 29
 Derivation of Rock Names, R. S. Mitchell, 17
 Determining Specific Gravity Using Heavy Liquids, D. Shannon, 32
 Diamond, 72
 Diatoms, 172
 Dietrich, R. V., Lone Jack Quarry, Rockbridge County, Virginia, 157
 Dinosaurs, 71, 174
 Diopside, 238, 285
 Dioptase, the Emerald Copper, R. W. Jones, 5
 Dolomite, 159
 Dunn, A., The Color of Sphalerite from the Lock Port Dolostone: Relationship to Chemical Impurities, 286
 Dutro, J. T., Jr., book review, *Minerals, Rocks, and Fossils*, 139
 Dypingite, 239
 Earlshannonite, 79
 Edenite, 239
 Emerald, 67
 England, Harvard's mineralogical tour, 20; Caldbeck Fells, 285
 Epsomite, 159
 Ernissee, J. J., book reviews, *The Mediterranean Was a Desert*, 139; *Dinosaurs: An Illustrated History*, 248; *The Fossil Book*, 291
 Esperite, 239
 Falster, A., K-Feldspars in Pegmatite Pockets of the Wausau, Rib Mountain, and Nine Mile Plutons, 287
 Feldspar, 66, 264
 Fiftieth Anniversary at Harvard, F. W. Miller, 274
 Fluoborite, 239
 Fluorapatite, 239, 267
 Fluorescent Forum, M. Robbins, Introductory Editorial, 141; Franklin's Fluorescent Minerals: Can They Be Found Elsewhere, 235; Fluorescence in Pyromorphite and Other Lead Apatites, 293
 Fluorite, 123, 159, 240
 Focus on Fossils, Collecting Fossil Fish from the Green River Formation, Wyoming, 29
 Foote Quarry, Kings Mountain, North Carolina: Revisited 1984, J. Hanahan, 76
 Fossils, fish, 29; North Carolina, 68; Museum of Geology, South Dakota School of Mines and Technology, Rapid City, 125; Virginia 171; Fossil Hall, Cincinnati Museum of Natural

- History, 223; *Isotelus*, 278
- Francis, C. A., Minerals of the Chandler Mine, A Zoned, Lithium-Rich Pegmatite, 263; Stellerite: Six New Occurrences, 285; The Origin of Right Angle Bends in Filiform Pyrite Crystals, 286
- Franklin's Fluorescent Minerals: Can They Be Found Elsewhere, M. Robbins, 235
- Furbish, W. J., Gold and Diamonds of North Carolina, 72; Mineral and Fossil Displays and Collections in North Carolina, 83
- Galaxite, 134
- Galena, 111, 120, 159
- Garnet, 113
- Gault, R. A., Jade, Gold, and Topaz from the Cassiar Mountains, British Columbia/Yukon Territory, Canada, 9
- Geology and Mineralogy of the Caldbeck Fells, Cumbria, England, R. J. King, 285
- Geology of North Carolina, H. S. Brown, 58
- Goethite, 159
- Gold, 11; Gold and Diamonds of North Carolina, W. J. Furbish, 72; 111
- Grice, J. D., Jade, Gold, and Topaz from the Cassiar Mountains, British Columbia/Yukon Territory, Canada, 9
- Grossular, 79
- Guerinite, 240
- Gypsum, 114, 159
- Halotrichite, 180
- Hanahan, J., Foote Quarry, Kings Mountain, North Carolina: Revisited 1984, 76
- Hansen, M. C., *Isotelus*: Ohio's State Fossil, 278
- Hardystonite, 240
- Harmotome, 98, 122
- Hartstigte, 228
- Harvard's Mineralogical Tour of England, W. C. Metropolis, I. P. Scalisi, 20
- Harvard, tour of England, 20; anniversary, 274
- Hedyphane, 240, 295
- Heinrich, E. W., A Mount Antero Postscript, 14; 136
- Heinrichite, 136
- Helvite, 79
- Hemimorphite, 124, 240
- Henderson, W. A., Jr., The Origin of Right Angle Bends in Filiform Pyrite Crystals, 286
- Heulandite, 98, 122
- Hexahydrite, 159
- Hobbs, C. R., Jr., Virginia Division of Mineral Resources: 150 Years of Service, 182
- Hodgkinsonite, 240
- Hope, R. C., North Carolina Fossils, 68
- Hydrocarbon, 218
- Hydrozincite, 240
- Huff, W., book review, *Biography of a Planet*, 247
- Ice, 292
- Index to Volume 59 (1984), 37
- Introduction to North Carolina Issue, 52
- Introductory Editorial (Fluorescent Forum), M. Robbins, 141
- Isotelus*: Ohio's State Fossil, M. C. Hansen, 278
- Jacobsite, 134
- Jacobson, M. I., Kings Canyon Lithium Pegmatites, Crystal Mountain District, Larimer County, Colorado, 219
- Jade, Gold, and Topaz from the Cassiar Mountains, British Columbia/Yukon Territory, Canada, J. D. Grice, R. A. Gault, 9
- Johnbaumite, 241
- Jones, R. W., Diopside, the Emerald Copper, 5
- Kaolin, 159
- Kellyite, 134
- Kemp, R. M., book review, *Gem Cutting, A Lapidary's Manual*, 247
- Kennedy, I., A New Occurrence of Rutile in Hastings County, Ontario, Canada, 285
- K-Feldspars in Pegmatite Pockets of the Wausau, Rib Mountain, and Nine Mile Plutons, A. Falster, 287
- Kidwell, A. L., 6th Annual New Mexico Mineral Symposium, Socorro, New Mexico, 230
- King, R. J., The Geology and Mineralogy of the Caldbeck Fells, Cumbria, England, 285
- Kings Canyon Lithium Pegmatites, Crystal Mountain District, Larimer County, Colorado, M. I. Jacobson, 219
- Kingsmountite, 79
- King, V. T., World News on Mineral Occurrences, 227; book review, *Mining Town; The Photographic Record of T. N. Barnard and Nellie Stockbridge from the Coeur d'Alenes*, 291
- Kyanite, 124
- Lac Nicolet Antimony Mine, Ham Sud, Quebec: A Relatively Unknown Micro-mont Locality, Q. Wight, 289
- Laueite, 79
- Laumontite, 97
- Lavoie, F., Recent Activity at the Chandler Mine, Raymond, New Hampshire, 262
- Lawrencite, 190
- Lepidocrocite, 160
- Lepidolite, 220
- Letters, 4, 108, 156, 212, 261
- Liddicoatite, 228
- Limonite, 160
- Lithiophilite, 267
- Lone Jack Quarry, Rockbridge County, Virginia, R. V. Dietrich, 157
- Lora Robins Gallery of Design from Nature, University of Richmond, Virginia, W. M. Reams, Jr., 193
- McKenzie, B. J., Some Mineral Collecting Sites in North Carolina, 84
- Magnesian-hornblende, 239
- Malachite, 160
- Manganaxinite, 241
- Manganhumite, 133
- Manganose stilpnomelane, 134
- Marcasite, 160, 289
- Margarite, 241
- Margarosanite, 241
- Massachusetts, Harvard anniversary, 274
- Melanterite, 161, 180
- Metaheirichite, 136
- Metaswitzerite, 79
- Metropolis, W. C., Harvard's Mineralogical Tour of England, 20; Stellerite: Six New Occurrences, 285
- Mica, 66, 265, 272
- Microcline, 161, 241, 285
- Miller, F. W., 50th Anniversary at Harvard, 274
- Mimetite, 241, 294
- Minehillite, 241
- Mineral and Fossil Collections and Displays in Virginia, A Compilation, 198
- Mineral and Fossil Displays and Collections in North Carolina, W. J. Furbish, 83
- Mineral Collecting Sites in North Carolina, W. F. Wilson, B. J. McKenzie, 84
- Mineralization at the Millington Quarry, New Jersey, W. Cummings, 213
- Mineral Localities in the Black Hills of South Dakota, T. J. Campbell, W. L. Roberts, 109
- Mineral locality listings, North Carolina, 84; Black Hills, South Dakota, 109; Virginia, 164
- Mineralogy of the Titanite Occurrence Near Natural Bridge, New York, G. W. Robinson, 288
- Minerals of the Chandler Mine, A Zoned, Lithium-Rich Pegmatite, C. A. Francis, 263
- Mitchell, R. S., Derivation of Rock Names, 17; Willard Lincoln Roberts, Francis Lewis Sperry, 26; Eberhardt William Heinrich, 136; Pyrite Oolites in Sandstone in the Cayuga Group (Silurian), Wise County, Virginia, 179; John Lawrence Smith, George Jarvis Brush—Their Paths Crossed in Virginia, 190; Frank Collins Tinsley, Frederick Alexander Canfield, 232; Jean Baptiste Biot, 282
- Molluscs, 68
- Molon, J., Thomaston Dam Site, Thomaston, Connecticut, 119
- Monohydrocalcite, 241
- Montmorillonite, 161
- Mordenite, 229
- Morphology and Twinning of Calcite Crystals from Winfield, Pennsylvania, R. P. Richards, 287
- Morphology of Tourmaline (Uvite) Crystals from Three Localities in Northern New York, D. N. Stahl, 288
- Mount Antero Postscript, E. W. Heinrich, 14
- Museum of Geology, South Dakota

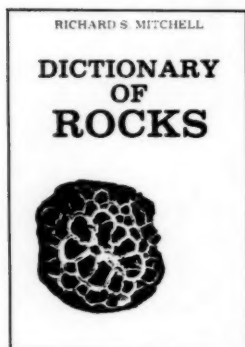
- School of Mines and Technology, Rapid City, South Dakota, P. R. Bjork, 125
- Nacrite, 161
- Natrolite, 95, 98, 216
- New Hampshire, Chandler mine, 262, 263
- New Jersey, Millington quarry, 213; Franklin fluorescent minerals, 235
- New Mexico, mineral symposium, Socorro, 230
- New Occurrence of Rutile in Hastings County, Ontario, Canada, I. Kennedy, 284
- New Occurrences of Twinned Crystals in St. Lawrence and Lewis Counties, New York, S. C. Chamberlain, 285
- Niter, 161
- Norbergite, 241
- North Carolina Fossils, R. C. Hope, 68
- North Carolina, introduction, 52; ruby mines, 54; geology, 58; pegmatites and alaskites, 64; fossils, 68; gold and diamonds, 72; Foote quarry, 76; collections and displays, 83; mineral collecting sites, 83; zeolites, 94; Bald Knob manganese deposit, Alleghany County, 130
- Ohio, Cincinnati Museum of Natural History, 223; state fossil, 278
- Origin of Right Angle Bends in Filiform Pyrite Crystals, W. A. Henderson, Jr., 286
- Palache, Charles, 274
- Palygorskite, 161
- Pargasite, 239
- "Pathway to the Past" at the Cincinnati Museum of Natural History, Cincinnati, Ohio, R. A. Davis, 223
- Pectolite, 242
- Pegmatites and Alaskites of North Carolina, J. Callahan, 64
- Penick, D. A., Jr., Virginia Mineral Locality Index, 164
- Pennantite, 134
- Perthite, 272
- Petrified wood, 115
- Phlogopite, 242
- Picropharmacolite, 242
- Porter, W. P., Pyrite Oolites in Sandstone in the Cayuga Group (Silurian), Wise County, Virginia, 179
- Powellite, 242
- Prehnite, 97, 242
- Privett, D. R., Zeolites in North Carolina, 94
- Projects and Activities, Determining Specific Gravity Using Heavy Liquids, 32
- Publications Recently Received, *A Collector's Guide to Antique Miners' Candlesticks*, 34; *Hardrock's International Rockhound Cookbook*, 34; *Fossils for Amateurs—A Handbook for Collectors*, 35; *The Fossil Collector's Handbook—A Paleontological Field Guide*, 35; *The Mediterranean Was a Desert*, 139; *Minerals, Rocks, and Fossils*, 139; *Biography of a Planet*, 247; *Gem Cutting, A Lapidary's Manual*, 247; *Dinosaurs: An Illustrated History*, 248; *The Fossil Book*, 291; *Mining Town: The Photographic Record of T. N. Barnard and Nellie Stockbridge*, 291
- Pyargyrite, 228
- Pyrite, 121, 161, Pyrite Oolites in Sandstone in the Cayuga Group (Silurian), Wise County, Virginia, R. S. Mitchell, W. P. Porter, 179, 216, 228, 286, 289
- Pyromorphite, 124, 293
- Pyrophanite, 134
- Pyroxmangite, 133
- Pyrrhotite, 217
- Quartz, 66, 124, 162, 217, 220, 228, 264, 273
- Reams, W. M., Jr., Lora Robins Gallery of Design from Nature, University of Richmond, Richmond, Virginia, 193
- Recent Activity at the Chandler Mine, Raymond, New Hampshire, F. Lavoie, 262
- Rhodonite, 133
- Richards, R. P., Morphology and Twinning of Calcite Crystals from Winfield, Pennsylvania, 287; Whiskers and Other Distorted Pyrite and Marcasite Crystals from Devonian Septarian Concretions from Ohio, 289
- Robbins, M., An Introductory Editorial, 141; Franklin's Fluorescent Minerals: Can They Be Found Elsewhere, 235; Pyromorphite and Mimetite, 293
- Roberts, B., book review, *A Collector's Guide to Antique Miners' Candlesticks*, 34
- Robertson, 26
- Robinson, G. W., Mineralogy of the Titanite Occurrence Near Natural Bridge, New York, 288
- Roberts, W. L., 26; Mineral Localities in the Black Hills of South Dakota, 109
- Rock Chips, R. D. Titamgim, 36, 143, 245, 292
- Rocks, derivation of names, 17; formation names, 36; rock and stone defined, 143; breccia, 245; ice, 292
- Roebbingite, 242
- Roemerite, 180
- Rogers, W. B., 183
- Rosenite, 162
- Ruby Mines of North Carolina, S. P. Yurkovich, 54
- Rutile, 79, 284
- Scalisi, P. I., Harvard's Mineralogical Tour of England, 20
- Scapolites, 242
- Scheelite, 13, 242
- Scolecite, 98
- Segeler, C. G., Thomaston Dam Site, Thomaston, Connecticut, 119
- Shannon, D., Determining Specific Gravity Using Heavy Liquids, 32
- Shark teeth, 69
- Shows and Symposia, 6th Annual New Mexico Mineral Symposium, Socorro, New Mexico, A. L. Kidwell, 230
- Silver, 111
- Simmons, W. B., Jr., Bald Knob Manganese Deposit, Alleghany County, North Carolina, 130
- Singh, R. J., book reviews, *Fossils for Amateurs—A Handbook for Collectors*, 35; *The Fossil Collector's Handbook—A Paleontology Field Guide*, 35
- Sixth Annual New Mexico Mineral Symposium, Socorro, New Mexico, A. L. Kidwell, 230
- Smith, J. L., 190
- Smithsonite, 242
- Some Notable Fossils in Virginia, S. O. Bird, 171
- Sonolite, 133
- South Dakota, Black Hills mineral localities, 109; Museum of Geology, South Dakota School of Mines and Technology, 125
- Specific gravity, 32
- Sperry, F. L., 26
- Sperryllite, 28
- Spessartine, 134, 266
- Sphalerite, 121, 162, 229, 243, 286
- Spodumene, 66, 220, 267
- Stahl, D. N., The Morphology of Tourmaline (Uvite) Crystals from Three Localities in Northern New York, 288
- Starkeyite, 162
- Stellerite: Six New Occurrences, C. A. Francis, W. C. Metropolis, 285
- Stilbite, 97, 122, 217
- Swabite, 243
- Switzerite, 79
- Szomolnokite, 180
- Talc, 243
- Tephroite, 133
- Thenardite, 162
- Thomaston Dam Site, Thomaston, Connecticut, C. G. Segeler, J. Molon, 119
- Thomsonite, 229, 243
- Tilasite, 243
- Tin, 112
- Tinsley, F. C., 232
- Tinsleyite, 232
- Titamgim, R. D., Rock Chips, 36, 143, 245, 292
- Titanite, 288
- Tirodite, 134
- Topaz, 9
- Tourmaline, 13, 267, 273, 288
- Tremolite, 243
- Tripolite, 267
- Tungsten, 112
- Turneaureite, 243, 295
- Twelfth Rochester Academy of Science Mineralogical Symposium: Contributed Papers in Specimen Mineralogy, S. C. Chamberlain, A. Dunn, A. Falster, C. A. Francis, W. A. Henderson, Jr., I. Kennedy, R. J. King, W. C. Metropolis, R. P. Richards, G. W. Robinson, D. N. Stahl, Q. Wight, 284
- Uvite, 243
- Vaesite, 227

Virginia, Lone Jack quarry, Rockbridge County, 157; mineral locality index, 164; fossils, 171; pyrite oolites, Wise County, 179; Division of Mineral Resources, 182; Lora Robins Gallery of Design from Nature, 193; mineral and fossil collections and displays, 198
 Voltaite, 180
 Watson, T. L., 184
 Whewellite, 114
 Whiskers and Other Distorted Pyrite and Marcasite Crystals from Devonian Septarian Concretions from Ohio, R. P.

Richards, 289
 Whiteite, 79
 Who's Who in Mineral Names, R. S. Mitchell; W. L. Roberts, F. L. Sperry, 26; E. W. Heinrich, 136; J. L. Smith, G. J. Brush, 190; F. C. Tinsley, F. A. Canfield, 232; J. B. Biot, 282
 Wight, Q., The Lac Nicolet Antimony Mine, Ham Sud, Quebec: A Relatively Unknown Micromount Locality, 289
 Willemite, 243
 Wilson, W. F., Some Mineral Collecting Sites in North Carolina, 84

Wolframite, 13
 Wollastonite, 244
 World News on Mineral Occurrences, V. T. King, 227
 Wurtzite, 121
 Wyoming, Green River Formation, 29
 Xonotlite, 244
 Yurkovich, S. P., Ruby Mines of North Carolina, 54
 Zeolites in North Carolina, D. R. Privett, 94
 Zincite, 244
 Zircon, 244

Publications Recently Received



Dictionary of Rocks by
Richard S. Mitchell.
 New York: Van Nostrand
 Reinhold Co. Hardcover;
 228 pages; 1985; \$29.95.

Dr. Mitchell's latest work on nomenclature and definition of rock materials is a fitting companion to his 1979 book, *Mineral Names: What do They Mean?*, by the same publisher, because it completes the coverage and provides the reader with two handy volumes which give most of the important definitions that may be needed in the ordinary course of study or reference in the geological sciences. As in his former work, the present volume is notable for a pleasing type-style and ease of scanning, and it is remarkable for clear and simple language which insures that the book will be understood by all. There are some places where technical terms cannot be avoided, however, and accordingly such words are gathered together in a glossary at the end of the book. Here will be found very few such terms, which speaks volumes for Mitchell's concern for the reader because lavish use of geological terms could have made the entire work highly involved and too technical to be of much use to the broader audience that Mitchell is aiming for. He intends this book to be used by both amateurs and professionals and by collectors and others whose

interests in the earth sciences may not be based on advanced courses in geology.

Speaking of which, not only is the language refreshingly plain, the author has chosen to include numerous gem and ornamental stone terms, actually about 300 of them, which should be most helpful to the lay reader and the lapidary. Some of the terms, however, are rather obscure or very rarely used, but nevertheless their inclusion serves to provide an authoritative place where arguments can be settled as to what they mean. This area of gemstone definition presents some dangers which Mitchell had to face in choosing gem words to put in his dictionary, one of which is defining when a gemstone becomes a rock rather than a plain mineral. It is obvious that he adopted a broad position in many cases, as can be seen in "Rhodochrosite rock," for example, which material is none other than the familiar massive ore vein lining that is much used in lapidary work. As Mitchell makes clear in his discussion of this problem in his prefatory and introductory remarks, some authorities would not class this kind of rhodochrosite as a "rock" because it does not occur in large, structurally significant masses. The inclusion of this type of limited mineral occurrence, and others, as nodules, jaspers, chalcedonies, etc., is arguable, but it is all to the benefit of readers who might otherwise have to look elsewhere to find these terms and to have them clearly explained. If anything, readers might want even more of these terms included because an ever-broadening number of massive gem materials are being introduced from deposits scattered all over the world and are being given names that their purveyors hope will be both distinctive and commercially attractive.

For each entry, not only is a definition provided, but also a classification, that is, is the rock igneous, metamorphic, or sedimentary, or in what way is it formed? Also given are the rock's place in the geological environment, its constituents, and the derivation or meaning of the name, and who named it, if such is known. This last, however, presents a problem to the reader who may want to know more about the first use of any name. For example, under "aa" lava, the first entry in the book, the initial published use of this term is credited to "Dutton in 1883," but that's as far as it goes. The bibliography provided at the beginning of the book does not give the Dutton reference, nor

